

Abstract

An acoustic wave transducer includes an acoustic track having electrode fingers for different electrodes. The electrode fingers engage to form exciting finger pairs. The acoustic track also includes marginal areas and an excitation area. The electrode fingers engage in the excitation area. The marginal areas and the excitation area are located along a transverse direction of the acoustic wave transducer. A longitudinal phase speed of an acoustic wave in the acoustic track is less in a marginal area than in the excitation area, and the acoustic wave is excitable and has a transversal basic mode. The following applies in the transversal basic mode for a wave number ky : $(ky)^2 > 0$ in a marginal area, and $(ky)^2 < 0$ in an exterior area outside the acoustic track. ky is smaller in the excitation area than in the marginal areas and in the exterior area.